L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS
AN 1983:90433 CAPLUS
DN 98:90433
TI Impact-resistant thermoplastic compositions
PA Japan Synthetic Rubber Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC C08L055-00; C08L025-14
CC 37-3 (Plastics Manufacture and Processing)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 57149348	A2	19820914	JP 1981-33198	19810310 <--
	JP 63006106	B4	19880208		
PRAI	JP 1981-33198		19810310		

AB Thermoplastic resin compns. having good heat and impact resistance contain 10-25:3-35:55-75 acrylonitrile-Me methacrylate-.alpha.-methylstyrene copolymer (I) [25747-75-5] prepd. by emulsion polymn. and graft copolymers prepd. by emulsion polymn. of 30-60 parts butadiene rubber [latex, >0.4-.mu.-diam. particle fraction (a) 10-35%] with 40-70 parts monomer mixt. of styrene [amt. (b) based on the rubber, 20-50] + .alpha.-methylstyrene 55-80, acrylonitrile 15-35, and Me methacrylate 5-20%, with the rubber backbone content (c) in final blend being 5-30%. For example, a polybutadiene (a 20%) graft polymer [26950-66-3] with graft monomer compn. of styrene-.alpha.-methylstyrene 67.5, Me methacrylate 6.7, and acrylonitrile 25.8% (b 31.3%) was prepd. by stepwise emulsion polymn. and blended 40:60 with 20:10:70 I and stabilizer and injection-molded to give a specimen (c 16%) having Izod impact strength 15 kg-cm/cm, Vicat softening temp. 136.degree., and thermal shrinkage (130.degree.) 1.2%, compared with 6, 138, and 0.9, resp., for a control contg. a similar graft copolymer of b 12.5%.

ST impact resistance polybutadiene graft polymer; acrylonitrile copolymer blend impact resistance; methylstyrene copolymer blend impact resistance; styrene copolymer blend impact resistance; methacrylate copolymer blend impact resistance

IT Plastics
RL: USES (Uses)
(acrylonitrile-Me methacrylate-Me styrene copolymer blends with butadiene rubber grafted with acrylonitrile, Me methacrylate, Me styrene and styrene, impact-resistant)

IT 25747-75-5
RL: USES (Uses)
(blends with butadiene rubber grafted with acrylonitrile, Me methacrylate, Me styrene and styrene, impact-resistant)

IT 26950-66-3
RL: USES (Uses)
(graft, blends with acrylonitrile-Me methacrylate-methylstyrene copolymer, impact-resistant)

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L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS
AN 1984:192927 CAPLUS
DN 100:192927
TI Heat- and impact-resistant thermoplastic resin compositions
PA Denki Kagaku Kogyo K. K., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC C08L035-06; C08L051-04
CC 37-3 (Plastics Manufacture and Processing)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 58206657	A2	19831201	JP 1982-89244	19820526 <--
PRAI JP 1982-89244		19820526		

AB The title compns. contain (A) thermoplastic copolymer of arom. vinyl compd. 30-90, cyanovinyl compd. 5-40, and maleimide or N-substituted maleimide 2-65% and (B) emulsion graft polymer from 30-350 parts conjugated diene rubber and 100 parts monomer mixt. of arom. vinyl compd. 5-90, cyanovinyl compd. 5-40, and (meth)acrylate ester 5-80% at A:B ratio 50-95:50-5. Thus, a 60:40 blend of 25:5:70 acrylonitrile-maleimide-.alpha.-methylstyrene copolymer [26011-03-0] and graft polymer [9010-94-0] prepd. from 114 parts 35% solids polybutadiene latex and 60.5 parts 35:25:40 styrene-acrylonitrile-Me methacrylate mixt. had softening temp. 129.degree., impact strength 20 kg/cm2 (DIN 53453), and glass transition temp. 131.degree., compared with 129.degree., 9 kg/cm2, and 109.degree., resp., for a control contg. ABS resin in place of the graft polymer.

ST methylstyrene copolymer blend impact resistance; maleimide copolymer blend impact resistance; acrylonitrile copolymer blend impact resistance; styrene graft copolymer impact modifier; methacrylate graft copolymer impact modifier; butadiene graft copolymer impact modifier; thermoplastic blend impact resistance

IT Plastics
RL: USES (Uses)
(acrylonitrile-maleimide-methylstyrene polymer-butadiene graft polymer blends, impact-resistant)

IT Polycarbonates
RL: USES (Uses)
(arom. vinyl compd.-maleimide polymer-butadiene graft polymer blends, impact-resistant)

IT 26011-03-0 84741-24-2
RL: USES (Uses)
(acrylonitrile-butadiene-Me methacrylate-styrene graft polymer blends, impact-resistant)

IT 83046-86-0
RL: USES (Uses)
(arom. vinyl compd.-maleimide polymer-butadiene graft polymer blends, impact-resistant)

IT 9010-94-0
RL: USES (Uses)
(graft, impact modifiers, for thermoplastic maleimide-vinyl compd. polymers)

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1010, uses and miscellaneous
RL: PRP (Properties)
(blends with styrene copolymers and maleimide copolymers, impact- and heat-resistant)

IT 9011-13-6, Maleic anhydride-styrene copolymer 31621-07-5, Acrylonitrile-N-phenylmaleimide-styrene copolymer 81598-70-1, Methyl methacrylate-N-phenylmaleimide-styrene copolymer 84741-24-2, Acrylonitrile-.alpha.-methylstyrene-N-phenylmaleimide copolymer 94858-30-7, Acrylonitrile-.alpha.-methylstyrene-N-phenylmaleimide-styrene copolymer 108573-48-4, Acrylonitrile-methacrylic acid-N-phenylmaleimide-styrene copolymer
RL: PRP (Properties)
(blends with styrene copolymers, impact- and heat-resistant)

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L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS
AN 1989:408383 CAPLUS
DN 111:8383
TI Impact- and heat-resistant thermoplastic resin compositions
IN Kondo, Masanori; Ogura, Kiyoshi; Kuramoto, Koichi
PA Sumitomo Naugatuck Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08L025-04
ICS C08L033-02; C08L033-04; C08L033-18; C08L035-00; C08L051-04
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 39
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 63235350	A2	19880930	JP 1987-70894	19870324 <--
PRAI JP 1987-70894		19870324		

AB The title compns., useful in prepg. automobile parts, elec. and mech. parts, etc., comprise 1-95 parts of copolymers polymd. (optionally, in presence of thermoplastic resins and/or rubbers) from maleimides and/or unsatd. carboxylic acids 1-70, arom. vinyl compds. (A), unsatd. nitriles, and/or unsatd. carboxylic esters (C) 0-99, and copolymerizable monomers 0-50%, and 5-99 parts copolymers polymd. (optionally, in presence of thermoplastic resins and/or rubbers) from (A) 0-97, (C) [contg. 3-95% with (B) >10% and 5-97% with (B) <10%] 3-80, and copolymerizable monomers 0-50%, as well as 1-99% (based total compns.) of other thermoplastic resins and/or rubbers. A mixt. of 15.4:48.4:36.2 Me methacrylate (I)-N-phenylmaleimide-styrene copolymer 50, 50.3:49.7 I-styrene copolymer (II) 30, acrylonitrile-styrene copolymer (III) 20, and additives 0.8 part, was injection molded to give a sheet having notched Izod impact strength 1.6 kg-cm/cm and heat distortion temp. 129.degree., vs. 1.6 and 87, resp., for a sheet of a 50:50 II-III blend.
ST methyl methacrylate phenylmaleimide styrene copolymer; acrylonitrile styrene copolymer blend; impact resistance styrene copolymer blend; heat resistance styrene copolymer blend
IT Plastics, molded
RL: USES (Uses)
(blends of styrene copolymers and maleimide or methacrylic copolymers, impact- and heat-resistant)
IT Polycarbonates, uses and miscellaneous
Polyesters, uses and miscellaneous
RL: USES (Uses)
(blends with styrene copolymers and maleimide copolymers, impact- and heat-resistant)
IT Rubber, synthetic
RL: USES (Uses)
(polyester-polyether, block, blends of styrene copolymers and maleimide copolymers with Pelprene P 40H, impact- and heat-resistant)
IT 25034-86-0, Methyl methacrylate-styrene copolymer 107080-92-2, Butadiene-methyl methacrylate-styrene graft copolymer
RL: USES (Uses)
(blends with maleimide or maleic anhydride copolymers, impact- and heat-resistant)
IT 108-31-6D, Maleic anhydride, reaction products with polyethylene 9002-88-4D, Polyethylene, maleated derivs. 9003-53-6, Esbrite 4 9003-54-7, Acrylonitrile-styrene copolymer 9003-56-9, ABS polymer 36604-80-5, Bondfast 2B 108554-70-7, Acrylonitrile-butyl acrylate-styrene graft copolymer 119177-95-6, Acrylonitrile-cyclopentadiene-ethylene-propylene-styrene graft copolymer
RL: USES (Uses)
(blends with styrene copolymers and maleimide copolymers, impact- and heat-resistant)
IT 9011-14-7 24936-68-3, Panlite L-1250, uses and miscellaneous 25037-45-0, Bisphenol A-carbonic acid copolymer 25038-54-4, Novamid

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L2 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS
AN 1989:58774 CAPLUS
DN 110:58774
TI Manufacture of heat- and impact-resistant maleimide copolymers with good workability
IN Nakazawa, Kazumi; Hashiguchi, Yuichi; Shibata, Yukikazu; Yamamoto, Tomoji
PA Japan Synthetic Rubber Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08F212-08
ICS C08F220-42; C08F222-40
CC 37-3 (Plastics Manufacture and Processing)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63162708	A2	19880706	JP 1986-312412	19861226 <--
	JP 07091341	B4	19951004		
PRAI	JP 1986-312412		19861226		

AB The title copolymers (intrinsic viscosity [.eta.] 0.1-0.7 in MEK at 30.degree.) of maleimide monomer 5-50, arom. vinyl monomer 40-80, cyanovinyl monomer 10-40, and other comonomer 0-10% are prepd. comprising (A) 5-45% copolymer component with maleimide content <50% of overall maleimide content, (B) 10-90% copolymer component with maleimide content 50-150% of overall maleimide content, and (C) 5-45% copolymer component with maleimide content >150% of overall maleimide content in the copolymer. A 15.4:62.2:22.4 (by wt.) N-phenylmaleimide-.alpha.-methylstyrene-acrylonitrile copolymer ([.eta.] 0.30) was prepd. by emulsion polymn. in the presence of redox catalysts with addn. of N-phenylmaleimide over an extended period of time to give A 21.3, B 61, and C 17.7%. This polymer had heat distortion temp. 147.degree., melt index 5.3 g/10 min, and glass transition temp. 153.degree.. A 70:30 blend of this polymer and ABS had heat distortion temp. 125.degree., Izod impact strength 12 kg-cm/cm, and melt index 4.1 g/10 min.
ST maleimide copolymer impact resistant; heat resistant maleimide copolymer; ABS maleimide copolymer blend; processability maleimide copolymer
IT Plastics
RL: USES (Uses)
(ABS blends with acrylonitrile-methylstyrene-phenylmaleimide copolymer, heat- and impact-resistant, with good workability)
IT Heat-resistant materials
(acrylonitrile-methylstyrene-phenylmaleimide copolymer)
IT Polymerization
(emulsion, of acrylonitrile and methylstyrene and phenylmaleimide)
IT 84741-24-2
RL: USES (Uses)
(ABS blends, heat- and impact-resistant, with improved workability)
IT 106677-58-1, Acrylonitrile-butadiene-styrene graft copolymer
RL: USES (Uses)
(acrylonitrile-methylstyrene-phenylmaleimide copolymer blends, heat- and impact-resistant, with improved workability)

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L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS
AN 1986:573705 CAPLUS
DN 105:173705
TI Heat- and impact-resistant thermoplastic resin compositions
IN Nakai, Yoshio; Shimomura, Yasunobu; Tateyama, Masamitsu
PA Mitsubishi Rayon Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08L033-12
ICS C08L051-04
ICA C08F279-06
CC 37-3 (Plastics Manufacture and Processing)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 61126157	A2	19860613	JP 1984-247592	19841122 <--
PRAI JP 1984-247592		19841122		

AB The compns. comprise 5-20:40-89:1-20:5-20 maleic anhydride-Me methacrylate-.alpha.-methylstyrene-styrene copolymer (I) and graft copolymers prepd. by enlarging 100 parts 1-70:30-99:0-10 1,3-butadiene-C2-8 alkyl acrylate-mono-or polyfunctional vinyl monomer copolymers (emulsion polymn. rubberlike products) with 0.1-5.0 parts .gtoreq.1 salt selected from alkali metal, alk. earth metal, Zn, Ni, or Al salt of oxo acids of Group IIIA-VIA (2nd and 3rd periods) elements (particle size 0.12-0.4 .mu.) and grafting 100 parts these enlarged copolymers with 10-1000 parts 50-100:0-50 Me methacrylate or styrene-mono-or polyfunctional monomer mixt. The compns. contain 1-70% enlarged rubberlike copolymers. Thus, a mixt. of 7.75 parts 2.5:14:1.0:2.5 I and 2.25 parts graft copolymer prepd. by enlarging 4:6 1,3-butadiene-Bu acrylate copolymer with 10% aq. Na2SO4 and grafting with a 180:4320 Et acrylate-Me methacrylate mixt. was injection molded to give a sample having heat distortion temp. 113.degree. and Izod impact strength (kg-cm/cm2) at 23.degree. 6.8, at -30.degree. 4.1, and after a 1000-h exposure at 23.degree. 5.9.

ST methacrylate methylstyrene maleic copolymer blend; sodium sulfate methacrylate copolymer enlarging; grafting enlarged methacrylate copolymer; heat resistance grafted methacrylate copolymer; impact strength grafted methacrylate copolymer

IT Swelling agents
(alkali metal and alk. earth metal and zinc and nickel and aluminum salts of oxo acids of Groups IIIA-VIA, for butadiene-Bu acrylate copolymer)

IT Group IIIA element compounds
Group IVA element compounds
Group VA element compounds
Group VIA element compounds
RL: USES (Uses)
(enlarging agents, for Bu acrylate-butadiene copolymer rubber latex)

IT Heat-resistant materials
(maleic anhydride-Me methacrylate-methylstyrene-styrene copolymer-metal oxo acid salts enlarged rubberlike graft copolymer blends, for moldings)

IT Plastics, molded
RL: USES (Uses)
(maleic anhydride-Me methacrylate-methylstyrene-styrene copolymer-metal oxo acid salts enlarged rubberlike graft copolymer blends, heat- and impact-resistant)

IT Impact strength
(of maleic anhydride-Me methacrylate-methylstyrene-styrene copolymer-metal oxo acid salts enlarged rubberlike graft copolymer blends, for moldings)

IT Rubber, synthetic
RL: USES (Uses)
(Bu acrylate-butadiene, enlarging agents for, oxo acid salts as)

IT Polymerization
(graft, of enlarged Bu acrylate-butadiene copolymer rubber latex, with Et acrylate and Me methacrylate)
IT 7558-79-4 7757-82-6, uses and miscellaneous 10043-01-3 10124-37-5
RL: USES (Uses)
(enlarging agents, for butadiene-Bu acrylate copolymer)
IT 26657-42-1 29896-67-1 62083-80-1 99391-98-7
RL: USES (Uses)
(graft, maleic anhydride-Me methacrylate-methylstyrene-styrene copolymer blends, for moldings, heat- and impact-resistant)
IT 31212-46-1
RL: USES (Uses)
(oxo acid salt-enlarged rubberlike graft copolymer blends, for moldings, heat- and impact-resistant)
IT 7632-05-5
RL: USES (Uses)
(swelling agents, for butadiene-Bu acrylate copolymer)

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     FILE 'CAPLUS' ENTERED AT 14:23:45 ON 24 APR 2003
L1             1 S JP63235350/PN
L2             1 S JP63162708/PN
L3             1 S JP61126157/PN
L4             1 S JP58206657/PN
L5             1 S JP57149348/PN
L6             0 S KR995267/PN
L7             0 S KR9952367/PN
L8             0 S KR99052367/PN
L9             0 S KR990052367/PN
L10       974650 S MASS OR BULK
L11       205905 S ABS
L12       254485 S EMULS?
L13          219 S L11 AND L12 AND L10

     FILE 'REGISTRY' ENTERED AT 14:28:23 ON 24 APR 2003
L14            0 S ALPHAMETHYLSTYRENE
L15         1288 S ALPHA METHYLSTYRENE
L16            6 S C9H10/MF AND L15
L17            0 S 98-3-9
L18            1 S 98-83-9

     FILE 'CAPLUS' ENTERED AT 14:31:01 ON 24 APR 2003
L19            1 S L13 AND L18
L20            0 S L11 AND L12 AND SOLUTION AND L18

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